B3500-2.1-U

ECONOMIC INDICATORS

NEIGHBOR ISLAND PROFILES

HAWAII COUNTY IN 1985

After a year of vigorous growth in 1984, the Hawaii County economy is at a much lower pace in 1985. Gross business receipts through July stood at $934 million, down 2 percent from last year compared to the 15-percent growth in business revenues experienced in 1984. However, state tax collections grew to $46 million, up 12 percent, while the total number of jobs grew by 4 percent through July to 39,550 jobs, compared to 2 percent the previous year. Meanwhile, the unemployment rate fell by 2 percent, primarily because of the increased number of persons entering the labor force. These results are encouraging in view of the impacts of this year's airline strike.

An important factor in the island's movement toward increased growth is the increased effort to pull the island's various groups and regions together for economic advancement. Examples of new coordinating efforts include a marketing committee for the Big Island chapter of the Hawaii Visitors Bureau, a new Hilo Hawaii Visitor Industry Association, a Kona Coffee Council to maintain high industry standards, and a Main Street program to bring new vitality to downtown Hilo. In addition, the Big Island Business Council, which represents local business, hotel, construction, and real estate associations, has been especially active in promoting workers' compensation reform and Big Island public construction projects.

The United Airlines strike depressed tourism on the Big Island more than in any other county. Fortunately, the strike is history and business is returning to normal. Present concerns include organizing all of the island's visitor groups to work together to market a clear and positive identity for the Big Island. Mauna Kea Properties' proposed resort north of Hapuna Beach has also triggered a controversial downzoning referendum campaign.

Progress in macadamia nut and guava marketing highlight the advances in agriculture. Expansion is also occurring at the deep ocean water enterprises at Keahole, at the research observatories at Mauna Kea and Kilauea Volcano, and at the wind energy sites from the Kohala mountains to South Point. The island's infrastructure is also getting a hard look by county officials, with special attention focusing on the possible future role of Hilo Airport as the state's warehousing and distribution center.

TOURISM

After a remarkably robust beginning, tourism on the Big Island was staggered by the 29-day United Airlines strike in May of this year. Hotel occupancy rates were chopped in half, from a six-year high of 83 percent in February to 39 percent in June. Visitor counts during the strike also dropped 34 percent below the level set the year before. In no other county did the strike have such a devastating impact on local visitor operations. Fortunately, the county is less dependent on tourism than the other islands.

Much of the interest in Big Island tourism surrounds the heralded construction of the 1,260-room Hyatt Regency Hotel at Waikoloa, a three-tower grand complex through which visitors can circulate via trolley, gondola, and a Pacific museum walkway. Even resort competitors are reportedly hoping to ride the wave of prestige and visibility for West Hawaii that the Hyatt is expected to bring. Already, a new Waikoloa golf course is planned for development in step with the Hyatt, and plans are being discussed for a professional sports training center.

Further up the Kona coast north of Hapuna State Park, Mauna Kea Properties, a subsidiary of UAL Inc., is in the permit-approval process for its proposed $350 million resort. The 539-acre site will be anchored by a 350-room luxury hotel, flanked by an 18-hole championship golf course and 710 low-rise resort residences priced from $650,000 to $950,000. In addition to the construction and visitor income to be generated, the resort is expected to create about 325 construction jobs and 1,000 long-term jobs.

Although Mauna Kea's resort proposal will be developed on land controlled by Mauna Kea Properties, concern has been expressed over possible encroachment by the resort on Hapuna Beach, and a referendum has been circulated to downzone the proposed resort's property. The Kona-Kohala Chamber of Commerce and others have come out squarely against this effort, which is viewed as an attack on the property rights of landowners and could be as damaging to the island's future development as Kauai's Nukolii controversy.

At Mauna Lani Resort, plans are being reviewed for a second hotel of at least 400 rooms to accommodate conventions, incentive tours, and other medium-sized groups. A developer may be selected by the end of this year.

The Big Island chapter of the Hawaii Visitors Bureau has, for the first time, established a forum for coordinating the marketing efforts of the island's public and private tourism promotion agencies. Through such action, member agencies hope to increase the impact of the available promotional dollars and work on the island's continuing identity problem. To this day, many visitors confuse

RESEARCH DEPARTMENT
SEPTEMBER/OCTOBER 1985

FIRST HAWAIIAN BANK
Established 1858 • Member of F.D.I.C.

the Island of Hawaii with Oahu or with the State of Hawaii.

The establishment of the Hilo Hawaii Visitor Industry Association in May finally completes the island's circle of tourism promotional agencies. In addition to completing its organization process, the association is encouraging unified marketing activities for the island as a whole. It is also exploring how more visitors can enjoy Hilo's laid-back country atmosphere, nearness to the volcanoes, and affordability.

In anticipation of tourism's expansion in West Hawaii, a new hotel services training program has been started through Hawaii Community College. Instruction will initially be in food preparation, but eventually other high-demand skills will be included.

SUGAR

Despite the closing of Puna Sugar Co. last September, total Big Island sugar production reached 391,000 tons, equal to 1983's abundant harvest. However, the 1984 drought hurt the cane plants. The drought and smaller production acreage is expected to produce a substantially smaller crop this year.

Aggressive efficiency improvements at Hilo Coast Processing Co. (HCPC) has spurred it to be among the state's leaders in plantation innovation. In fact, it won recognition from the U.S. Senate this year for its productivity innovations. HCPC's $3.7 million electricity production for Hawaii Electric Light Co. has been aided by modifying its boilers to accept coal, less expensive than fuel oil, to supplement bagasse. About 18,000 tons of low-sulfur coal will be burned this year, increasing to 44,000 tons in 1986. At that time, HCPC's potential oil fuel bill of $4 million will have been shaved to $2.7 million.

The closing of Puna Sugar gave Amfac the challenge of finding new uses for the plantation's 18,000 acres of land, most of which was owned in fee while 8,000 acres were leased from the Shipman Estate. Of the lands owned in fee, about 1,500 acres continue to be leased to papaya growers whose fruit is marketed by Amfac. Another 1,000 acres have been planted in new macadamia orchards as a joint venture with Puna Macadamia Company. For the remaining lands, new uses being considered include an agricultural subdivision, coffee orchards and biomass crops. The 137 acres surrounding the Puna Mill are being eyed for industrial development, possibly utilizing the mill's energy-related products. Of the lands which were leased from the Shipman Estate to 1994, the estate has allowed the use of 3,500 acres for macadamia nuts, bananas, and a plant nursery.

To assist Puna Sugar's displaced employees, Amfac is negotiating with the estate for development of a 305-acre agricultural subdivision. One-acre lots would be given free to the former employees, but required improvements such as roads, water lines, and utilities would cost employees $19,000 over a 20-year period.

DIVERSIFIED AGRICULTURE

Weakened by lower sales in vegetables and melons, papayas, coffee, and livestock, diversified agriculture was at a standstill in 1984 at $91 million despite gains in macadamia nuts and anthuriums. Overall, diversified agriculture on the Big Island is led by macadamia nuts ($26 million in 1984 farm sales), followed by beef cattle ($18 million), papaya ($7.5 million), anthuriums ($7 million), and coffee ($5 million). Other crops include ginger root ($2 million), Chinese cabbage ($947,000), and celery ($664,000). Employment in this sector is stumbling, recorded in 1984 at 4,800 workers, down 3 percent from 1983, and appears headed toward another 11 percent slide this year.

The 9-percent gain in macadamia nut sales last year can be attributed to a substantial expansion in harvested acreage, swelling demand, and improving farm prices, all of which offset a slight setback in orchard yields. The good performance was a sign that the glut of 1982 had finally been absorbed.

As the state's largest producer accounting for roughly 60 percent of total output, C. Brewer's Mauna Loa Macadamia Nut Processing Company is cautiously optimistic. Its orchards on the Big Island and Maui now total 9,000 acres, with 250 more acres being planted each year. Mauna Loa sees a doubling of its macadamia nut output in five years, at which time the industry may begin to eclipse the island's sugar industry in crop value and employment. The company recently started construction of a $1.5 million chocolate candy plant, which, when it begins operation in October, will be the most automated in the world.

Cattle ranching is suffering from a continuing slide in beef prices due in part to a preference for less meat in the American diet. Ranchers across the nation have also brought more cattle to market, depressing prices to levels last seen 30 years ago. While Parker Ranch remains steadfastly in ranching, others have entered other pursuits. For example, Kahua Ranch will begin commercial growing of long-stemmed carnations in a new 24,000 square foot greenhouse, and hopes to eventually produce over a third of the carnations sold in Hawaii.

Big Island papaya sales plunged 31 percent last year due to the oversupply of fruit which sent prices plummeting. Acreage in planting was consequently reduced, and some growers left the business, thereby curtailing production and improving prices for those who remained. This year, Big Island production through June is down 9 percent, and may finish the year at 46 million pounds.

Because of uncertainty over the effect of the double-dip process on fruit quality, other methods of insect irradication continue to be studied. Alternatives include methyl bromide, a chemical used to treat other fruits but still raising health questions, and irradiation, a yet to be approved process proposed for a facility in Hilo. Another new facility at Keaau to be built by Diamond Head Papaya this fall will use a refined vapor heat process to treat fruit being shipped to Japan.

Anthuriums hit a record $7 million in sales last year, up 22 percent, as strong sales combined with firm prices. When foreign sales fell victim to the strong U.S. dollar, growers fortunately found more receptive markets on the mainland.

Coffee tree acreages have been on an upswing since 1981. Grown in the only coffee producing area in the U.S., Kona coffee has carved a special gourmet niche that has allowed premium prices in an otherwise glutted world market. The question now facing the industry is whether the previous good sales and price levels can be sustained with next year's 10 to 15 percent seasonally larger crop. Other concerns include increasing price resistance from consumers and processors, obtaining sufficient farm labor, and maintaining product quality.

The Kona Coffee Council was formed late last year among Kona's six processors and six grower associations to unify coffee grades and to set standards, as well as to coordinate promotional campaigns. Relatedly, a law was passed this year establishing mandatory state inspections of exported coffee for proper grading.

Other crops enjoying expansion include guava and bananas. The Hawaii Guava Growers Co-op, which han-

dles about 40 percent of the Big Island's production, is enjoying a resurgence of demand for the fruit after the disasterous 1982 glut. In large part, the upturn follows the success of C. Brewer's exclusive arrangement with Ocean Spray to market a guava-blended fruit drink. It is now hoped that national consumer demand will be kindled, and that other juice producers will tap Hawaii's guava production. Amfac's guava processing for the Kern company's fruit products is already nearing capacity. New markets and products have also appeared. Inquiries for marketing guava juice in Japan and South Korea appear promising, and a dry guava concentrate is being developed. There may also be a market for guava leaves to be processed in Japan for tea, a beverage claimed to have medicinal powers.

Keaau Banana Plantation is also in the midst of expansion. It has 120 acres planted, 80 more to be planted by December, and another 200 scheduled by the end of 1986.

An example of a small agricultural firm that has found its own market niche is the Hawaiian Herb and Spice Company in Glenwood, which directly serves gourmet chefs, primarily on the East Coast, with fresh culinary products. The company has found profitability in a specialized market where supply does not satiate demand, and where a risk-taking entrepreneur, knowledgeable about his product and customers, can find success.

CONSTRUCTION

Since 1980, construction has been gradually dwindling, as evidenced by the retreat in employment from a peak of 1,950 workers in 1980 down to 1,150 last year. Private permit values have shrunk from $146 million in 1980 to $90 million in 1984, and government projects from $43 million in 1980 to $17 million in 1984. With interest rates down and major resort projects in the offing, however, the outlook for construction on the Big Island has turned more optimistic. Still, several factors suggest continued caution in the near term: the continuing lag in government construction contracts; the growing difficulty for construction companies in getting bonding from insurance underwriters; and the continuing spiral in workers compensation premiums.

The changing construction environment has given rise to a new type of builder, the do-it-yourself owner/builder who now accounts for as much as 82 percent of all Big Island building permits. Suppliers catering to the owner/builder are also doing well, as are small nonunionized contractors free of large overhead costs.

North Kohala is the site of several major development projects being proposed or now underway. For example, Kohala Corp. is beginning to market its 460-acre, 170-lot Maliu Ridge agricultural and residential subdivision. Near Kapaau, Kohala Corp. is seeking county approval for the Ainakea residential subdivision, to consist of 120 lots ranging upwards of 10,000 square feet. Kohala Ranch is grading land for the first 223-lot increment of its 3,500-acre agricultural/ranching subdivision. Receiving Hawaii County Planning Commission approval after intense community discussion is Mahukona Properties' 1,043-acre proposed residential/resort development, which may eventually contain 1,500 hotel rooms, 3,200 condominium units, 500 single family homes, 20 ranch lots, and related commercial and recreational facilities.

Waimea also entered the development spotlight with the announcement of the Parker Ranch 2020 Plan in May. The plan calls for a redesigned town center, a 130-acre light industrial and high tech park, and a 190-acre residential/agricultural subdivision. Implementation of the plan is contingent on developing adequate water supplies in this drought-stricken area. So far, Mauna Lani Resort has funded a groundwater survey, and state funds have been appropriated for exploratory well drilling.

HIGH TECH INDUSTRIES

The Natural Energy Laboratory of Hawaii (NELH) is continuing to harness Keahole's matchless combination of resources: warm ocean surface water; cold, nutrient-rich, and pathogen-free deep seawater; abundant sunshine; and acres of undeveloped land. Ongoing research includes the highly efficient open-cycle Ocean Thermal Energy Conversion project, oyster growing, and the raising of Samoan giant clams. Alcan International is also investigating OTEC as a power source for aluminum processing. Because of the increased activity, NELH is planning to install a 30-inch pipe to augment cold water flow.

Hawaii Abalone Farms, one of two NELH lessees, has grown half a million abalone for harvest, and is expanding its kelp supply to feed the abalone by constructing a four-acre, 15-foot deep pond. It is also experimenting with polyvinyl chloride (PVC) pipes for a new line. If proven feasible, PVC pipelines could greatly reduce cold water development costs.

Cyanotech, the other NELH lessee, is developing two more acres of ponds to grow algae producing beta carotene, a good source of vitamin A. About 20 tons of beta carotene are to be produced per year for sale at $40 a pound. The company has just started full production at 40 tons per year of spirulina, which is an algae nutritional supplement which sells at $9 per pound. Reportedly, current demand can easily absorb twice that volume.

On a 547-acre site adjacent to NELH, the State High Tech Development Corporation is forging ahead with development of the Hawaii Ocean Science and Technology Park (HOST), scheduled for opening by October, 1986. State funds of $7.9 million have been invested, hoping to reap returns of up to 2,000 jobs and $65 million in income when the park is fully operational. The campus-like park is designed to enable firms to commercially exploit the ocean-related technologies developed at NELH.

Three telescopes are now under construction at Mauna Kea, and are expected to double astronomy's present economic contribution when operational. The United Kingdom-Netherlands $15 million 15-meter telescope should be completed in the spring of 1986. Cal-Tech's $10 million, 10-meter telescope is slated for the fall of 1986. Ground has just been broken for what will be the world's largest optical-infrared telescope. The 10-meter instrument for an association formed by the University of California and Cal-Tech with funding by the W. M. Keck Foundation, may cost in the neighborhood of $110 million. Even bigger would be the $150 million, 15-meter National New Technology Telescope (NNTT), for which Mauna Kea is a leading contender in the site selection process that is to conclude next summer.

In terms of support facilities and services, construction for a new powerline to the Mauna Kea summit has just begun, and some funds are available for improving the summit road. Just opening next to the University of Hawaii-Hilo Campus is a $1.5 million headquarters for the United Kingdom's 31-member astronomy staff. At Hawaii Community College, a new program was funded this year to train astronomical technicians.

RENEWABLE ENERGY

About 40 percent of the Big Island's energy is supplied by renewable sources, mostly from the sugar plantations' oil-supplemented bagasse-burning plants. Amfac's Puna

Biomass Power Co., whose 16-megawatt plant is the former Puna Sugar generator, has seen its supplier of woodchips, Bio Power Corp., file for bankruptcy this July. Puna Biomass has consequently begun to test a mixture of coal and bagasse for fuel. On the Hamakua Coast, C. Brewer's Bioenergy Corp. will test harvest its 30-acre tree farm this fall.

Although now providing only 3 percent of the Big Island's needs from a research well, the biggest potential for renewable energy still lies in geothermal power. In fact, the development of 13 megawatts of geothermal energy by 1989 is needed to avoid the construction of another diesel plant by Hawaii Electric Light Co. Exploratory drilling on a third well continues with Puna Geothermal Venture. Barnwell Industries has also explored the area for geothermal development. At publication, the Campbell-MidPacific-True consortium was still negotiating with the state for a land swap as an alternative to drilling at the volcanically active Kahaualea site.

Wind energy from Control Data Corp.'s operation at Kahua Ranch will be stepped up to 239 turbines, boosting capacity to 4.1 megawatts. Also at Kahua, the University of Hawaii plans to test a wind energy battery storage device by the end of this year. By next summer, Kamakani Ikaika at South Point will jump to 7 megawatts of wind power, and American Diversified will install 10 megawatts of capacity there.

An exciting new concept appearing in the Kohala highlands links renewable energy with utilization of the area's open lands and cheap water. The Hawi Agriculture and Energy Corporation has 135 acres for agricultural or other uses that can benefit from Kohala Corp.'s hydroelectric energy and the Kohala Ditch water. Such a model may also find application at Kahua Ranch.

GOVERNMENT

Infrastructure to support development is the current priority for Hawaii County government. In West Hawaii, a third 50-million gallon reservoir at Waimea is under construction to serve the area's growing domestic needs, and a $26 million expanded wastewater treatment system for North Kona is under study. On land, the county's Hele-On bus system is struggling to maintain island-wide service despite a 42-percent cut in its current year budget. Hilo airport is the subject of a study to make it the warehousing and cargo distribution center for the state, possibly supplemented by its designation as a foreign trade zone and industrial park with linkages to Hilo Harbor's operations. Furthermore, the county's ongoing General Plan update process includes a review of the island's total infrastructural requirements over the next ten years.

The recent convergence of public and private actions promise a new look and new life for Hilo. These efforts include private renovations of downtown buildings, County Council approval of a Hilo Redevelopment Plan, and state passage of a tax-increment financing law which will enable public improvement projects to be supported by increased property tax revenues resulting from renovations. Another important catalyst is the Main Street project, part of a national revitalization effort. The project has received a three-year commitment in a partnership between Hilo businesses and the county to restore the historic beauty of downtown, bring businesses back to health, and promote greater community use of the area.

Hawaii County Statistics

	Unit	Period	1980	1981	1982	1983	1984	Jan.-July 1985	% change Jan.-July 1985/1984	% change Annual 1984/1983
Population, Resident	number	July 1	93,000	97,000	100,100	105,700	107,800	n.a.	n.a.	2.0
Per Capita Personal Income	dollars	total	8,510	8,838	9,114	9,396	n.a.	n.a.	n.a.	n.a.
Civilian Labor Force	number	mo. avg.	41,950	44,250	45,450	46,600	46,850	47,600	1.9	0.5
Employment	number	mo. avg.	39,300	40,850	41,050	42,350	43,100	43,750	2.1	1.8
Unemployment	number	mo. avg.	2,650	3,400	4,450	4,300	3,750	3,850	−1.3	−12.8
Unemployment Rate [1]	percent	mo. avg.	6.3	7.6	9.8	9.2	8.0	8.1	−2.4	−13.0
Total Job Count	number	mo. avg.	37,150	38,000	37,800	38,600	39,400	39,550	4.2	2.1
Gross Business Receipts	mil. $	total	1,122.4	1,179.4	1,246.2	1,380.9	1,592.8	933.8	−2.3	15.3
State Tax Coll. (comp)	thous. $	total	57,404	59,698	52,485	65,787	73,867	46,418	11.5	12.3
Visitor Expenditures	mil. $	total	187.6	179.2	200.9	277.2	248.9	n.a.	n.a.	−10.2
Estimated Westbound Visitors	thous.	total	761.1	672.7	678.2	714.0	760.9	414.9	−9.9	6.6
Hotel Inventory (June)	number	June	6,260	6,859	7,106	7,368	7,209	7,511	5.1[2]	−2.2
Hotel Occupancy	percent	mo. avg.	51.0	44.9	44.2	46.3	55.6	59.0	6.1	20.1
Private Permits	thous. $	total	145,958	136,455	75,209	88,015	90,347	78,458	53.6	2.6
Residential Permits	thous. $	total	108,360	73,708	61,056	56,852	64,370	56,197	75.2	13.2
Non-Residential Permits	thous. $	total	37,598	62,747	14,153	31,163	25,977	23,261	18.9	−16.6
Public Contracts Awarded	thous. $	total	42,543	48,364	22,920	20,154	23,057	10,130	−24.8	14.4
Real Estate Resales										
Single Family	number	total	488	425	281	378	325	205	10.2	−14.0
Average Price	dollars	cum. avg.	95,301	93,272	96,249	91,796	89,036	98,360	10.4	−3.0
Condominium	number	total	147	93	58	127	95	57	−14.9	−25.2
Average Price	dollars	cum. avg.	100,790	107,730	123,200	95,535	91,019	96,498	7.7	−4.7
Sugar Production, raw sugar 96	thous. tons	total	367	384	369	392	391	178	−26.7	−0.3
Diversified Crops and Livestock	thous. $	total	78,140	86,930	89,189	91,824	91,027	n.a.	n.a.	−0.9
Diversified Crops[4]	thous. $	total	55,669	63,912	65,412	67,951	67,794	n.a.	n.a.	−0.2
Livestock	thous. $	total	22,471	23,018	23,777	23,873	23,233	n.a.	n.a.	−2.7

[1]Refers to number of jobs rather than number of persons employed. Persons with more than one job are counted more than once.

[2]Totals do not include real property taxes.

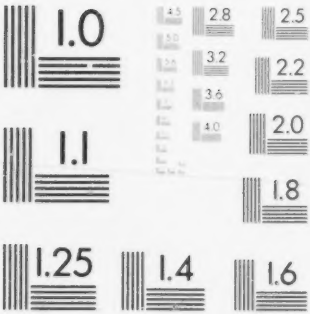
[3]Compares February, 1985 to February, 1984.

[4]Total crops excluding sugar.

n.a. = not available

MILLIMETERS

MICROCOPY RESOLUTION TEST CHART
NBS - 1010a
(ANSI and ISO TEST CHART No. 2)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

24:1

Washington D.C.

CIS

B3500-2.2-4

ECONOMIC INDICATORS

NEIGHBOR ISLAND PROFILES

KAUAI COUNTY IN 1985

There is a new attitude toward development on Kauai. The Nukolii referendum and Hurricane Iwa graphically illustrated the importance of tourism to the local economy. Attitudes are becoming more accommodating toward new projects, as long as developers remain sensitive to community needs and minimize negative social and environmental impacts. The change in attitude was most recently shown in the complete support given for Ventura Development Corp.'s Poipu resort proposal in public hearings.

The new mood has emerged at a time when Kauai's visitor industry is turning in an impressive performance. The United Airlines strike that crippled visitor traffic on the other counties hurt Kauai in June, but the county has since returned to the forefront of visitor growth. The large volume of reservations placed with the newly opened Sheraton Princeville Hotel suggests a bright future for the expanding upscale visitor market, which will soon see the entry of the Kauai Hilton, the Westin Kauai, and the proposed Poipu resort.

Riding on the strength of the visitor industry, business receipts through September were up a resounding 8 percent over last year and the unemployment rate was down to 6.2 percent, the lowest since 1981. State tax collections on Kauai were up a whopping 21 percent. Bank debits, an indication of spending in the economy, were also ahead by 12 percent.

Elsewhere in the economy, the sugar plantations are moving forward with their cost reduction programs to keep ahead of falling sugar prices. A vast new market for guava highlights the diversified agriculture scene. A massive expansion of the ocean-based military tracking range at Barking Sands is under way. The Kauai Economic Development Board is lobbying for runway improvements that would bring full wide-body jet service to Lihue Airport. And, finally, Kauai's booming film industry is heading toward a record $10 million in local spending next year.

TOURISM

Kauai is leading the other counties in visitor industry vitality this year. Before the United Airlines strike in May, the Garden Isle's growth in westbound visitors through April stood at 12 percent. The strike set the visitor count back in May and June, but figures through October show Kauai ahead of the other counties with a westbound visitor growth rate of 2.5 percent. At this rate, Kauai's visitor count for 1985 is likely to exceed 840,000. Hotel occupancy rates confirm this upward trend, recording a 5 percent increase through September. This was in addition to a 6.5 percent expansion in the island's room inventory during the same period.

Other visitor accommodations are also receiving brisk business. Beach houses and condominiums on the North Shore are booked through the winter months and receiving a large volume of requests for the following summer.

At Poipu, occupancy rates at the Kiahuna Plantation condominiums are up 15 to 20 percent over 1984. The area's condos have reported strong growth in patronage from affluent families who favor the condos because of the home-like layouts and kitchen facilities, plus the convenience of hotel-like services that are also provided.

Kauai's latest entry in the widening upscale resort market is the Sheraton Princeville Hotel, which opened this past August. The $60 million, 300-room hotel is designed to create an elegant atmosphere of Victorian Hawaii with antique furnishings and an expansive property that overlooks Hanalei Bay. Over half a million dollars has been spent by Sheraton to promote the hotel, with good results. January through March of 1986 is fully booked, and the subsequent months are also filling up rapidly. In March, the Sheraton will host the prestigious LPGA Kemper Open, last played at Kaanapali, Maui. It has been estimated that the nationally televised golf tourney pumps $4 million into Hawaii's economy each year.

The Kauai Hilton at the beach in Hanamaulu is also scheduled to open in March, 1986. The Hilton Corporation will operate the 353-room hotel, and manage the adjacent 150 condominiums at Kauai Beach Villas. Like the new Sheraton, the Kauai Hilton is pursuing the upscale visitor market, and will feature a 25-foot high mountain draped with waterfalls and ringed by three swimming pools.

On the outskirts of Lihue, the Kauai Surf is scheduled to close in early January, to be reopened in the spring of 1987 as the Westin Kauai world-class resort. A new ten-story tower will boost the number of hotel and condominium rooms to 845, with rates averaging $180 to $190 a day. The largest convention facility on the Neighbor Islands with 33,000 square feet of meeting space will also be developed. Five miles of paths for horse-drawn carriages will meander through the resort.

On the eastern coast of Poipu at Keoniloa Beach, efforts are under way to develop another upscale resort for Kauai. Ventura Development Corp. has proposed a hotel-condominium complex stepped back along the coastal

RESEARCH DEPARTMENT
NOVEMBER/DECEMBER 1985

FIRST HAWAIIAN BANK
Established 1858 • Member of F.D.I.C.

slope. Although the initial plans called for a 549-room facility, the final configuration will depend on the requirements of the hotel operator. Construction could begin in 1987 with the hotel opening in 1989.

Two of Kauai's largest hotel properties have changed hands. The 311-room Sheraton Coconut Beach Hotel was sold to the California-based Pleasant Hawaiian Holidays, the largest group tour packager to Hawaii. Sheraton Hotels will continue to operate the property. The sale brings the prospect of increased tourism promotion for Kauai through Pleasant Hawaiian Holidays. Also sold was the 392-room Coco Palms Hotel to Wailua Associates, a California limited partnership. Its subsidiary, Parklane International Hotels, will operate the hotel. With the sale comes the announcement of $7 million in renovation to the property, including the remodelling of 360 rooms, two new restaurants, a health spa, and four new meeting rooms.

A new attraction for visitors and residents alike will be developed at the Gaylord Wilcox house in Puhi. Over half a million dollars of construction is under way in preparation for a February opening date. The 35-acre property, long known as Kilohana, will feature sales of local products, a Hawaiiana museum, and demonstrations of Hawaiian craftmaking. A 4,500 square foot pavilion will also be built to accommodate conventions and private parties.

An attraction that has hosted visitors and residents since 1971 is the Pacific Tropical Botanic Garden. Headquartered on 186 acres in the Lawai Valley, the garden houses one of the world's most comprehensive collections of tropical plants for research and education, and the protection of rare species from extinction.

Unfortunately, the expansion of Kauai's visitor industry has also brought congestion to North Shore beaches. For example, about 28 recreation companies operate at Hanalei Bay alone. Kauai County's Planning Department is now developing the state's first Shoreline Recreation Development Plan to help determine how to best balance the competing needs of residents, visitors, and recreation businesses for beach and ocean access.

RETAILING

Retail trade is booming on Kauai, up 6 percent through September, and may exceed $220 million by year's end. Much of this activity can be attributed to the healthy flow of visitors to Kauai this year and the efforts of major shopping centers to woo them. For example, sales at Kukui Grove Center, Kauai's regional shopping mall in Lihue, jumped 31 percent and topped $42 million last year. This year's revenues are roughly 10 percent higher, and may push 1985 totals past the $46 million mark. Residents are attracted to the parades, foot races, and other major community events held there. Tourists, who account for a fifth of store sales, are also being catered to by such services as free shuttle rides from docking cruise ships. Two ships now carry roughly 1,600 visitors to Kauai every week. Special efforts to involve the community also typify the Kukui Grove Center. For example, the center has developed an adopt-a-halau program in which mall space is provided free to a hula halau in exchange for a monthly performance for shoppers.

Waipouli's Coconut Plantation Market Place is also enjoying record sales this year. Receipts are over 20 percent above last year, and 50 percent above the hurricane recovery levels of 1983. Part of the increase is due to increased patronage by cruise ship passengers brought in by the Market Place's free shuttle service. Those customers spend about $50 apiece at the Market Place. Special efforts have also begun this year to attract Japanese tour groups.

Kiahuna Shopping Village in Poipu is a new addition to Kauai's retail scene. The $5 million complex encloses 33,000 square feet of retail space and is geared to serve the upscale visitor market.

Big Save, Kauai's largest supermarket chain, is proceeding with its renovation project at its Eleele store, which will be nearly doubled in floor space to 20,000 square feet. Upon completion of construction in April of next year, the Eleele outlet will reportedly be the biggest store on Kauai's west side.

SUGAR

Sugar production represents a larger share of the local economy for Kauai than for any other county. Eleven percent of Kauai's jobs are directly supported by the industry. Last year represented a time of recovery for Kauai's sugar plantations following the destruction of Hurricane Iwa in late 1982. From a low of 205,000 tons of raw sugar produced in 1983, production rebounded to 217,000 tons in 1984. This year production is 9 percent ahead of 1984, and may exceed 230,000 tons by year's end.

Last year, falling sugar prices negated production gains and left the value of unprocessed sugar on Kauai virtually unchanged at $52 million. With prices continuing to slide, total sugar revenues this year may dip below that amount despite an expected increase in harvests.

Lihue Plantation is continuing to cut costs, from $476 to produce a ton of sugar in 1983 down to $340 per ton this year. Production is also forecast to grow 13 percent to 82,500 tons which would be a record crop. Because of low prices, however, these anticipated good results may not be enough to earn a profit.

The situation is slightly better at McBryde Sugar Co. Major cost reductions and good harvests may enable the company to turn a profit this year. At 57,000 tons of sugar, this will be the first fully recovered crop since Hurricane Iwa.

Following the 1982 hurricane and the 1984 drought, Kekaha Sugar will return to full production next year at 54,500 tons of sugar compared to 51,000 tons this year. Sugar yields are expected to reach new heights in 1988 when the installation of drip irrigation will be completed. Costs are being trimmed by a cutback of 29 employees this year.

Olokele Sugar is enjoying 14 percent higher yields this year, up to 13.5 tons of sugar per acre. This may push its total sugar production over 30,000 tons in 1985. As one of the lowest cost producers in the state, Olokele is expecting to reap profits both this year and next.

DIVERSIFIED AGRICULTURE

In 1984, diversified agriculture recorded farm sales of $11 million, the least of Hawaii's four counties. Employment stood at 350, unchanged since 1981.

The star diversified crop on Kauai is guava. After three years of negotiations and testing, C. Brewer announced a joint venture this year with Ocean Spray to produce and market a new guava drink. Encouraging results from test marketings have led to a planned nationwide marketing by the end of 1986, and has given Brewer's subsidiary, Kilauea Agronomics, the challenge of producing sufficient fruit to supply the new demand. Plans are in place to expand the company's guava orchards from the present 330 acres to 530 acres by 1987. Guava fruit production is projected to jump from 4 million pounds this year to 10 million next year. In the effort to maximize production, advanced agricultural practices are being tried: rooting new cuttings in

six months, cycling sections of the orchards through pruning and harvesting year-round, installing new irrigation systems, and processing the guava pulp into a highly concentrated puree. At present, guava seems to hold great promise as a profitable new crop for Kilauea's former sugarcane land.

Kauai's papaya industry is still reeling from a string of misfortunes that began with a papaya blight and Hurricane Iwa in 1982. In 1984, growers were required to adopt the double-dip method of treating fruit-fly infestation, which produced hard fruit and disqualified much of the crop from being marketed on the mainland. Then, a shipload of partly spoiled Kauai papaya that was sold on the mainland gave the fruit and Kauai's Best Fruits packers a bad image. Meanwhile, dramatically expanded acreages planted because of good profits the previous year produced a glut and depressed prices. Papaya production was subsequently scaled back and Best Fruits' sales dropped. Some of Kauai's largest growers quit or cut back sharply on their operations.

Today, Best Fruits is saddled with a $1.8 million debt. An accountant and an economist have been funded by the county to develop a plan to return Best Fruits to solvency. Papaya harvested through Best Fruits this year is projected to drop to 2.6 million pounds compared to last year's 9 million pounds. With new plantings also reduced, the near-term outlook for Kauai's papaya appears dim.

The picture is brighter at Pioneer Hi-Bred International in Kekaha, whose acreage for seed corn, soybean, and sunflower research jumped 22 percent to 138 acres this year. Kauai's benevolent climate allows up to three seed growing cycles to be completed in a year, making the local operation a valuable addition to Pioneer's extensive network of mainland research farms.

Kauai's banana production has more than recovered since the 1982 hurricane. Last year's 2 million pounds of production was over 340 percent more than 1983's volume, helping the statewide volume of banana production last year to exceed the volume of inshipments for the first time since the late 1970s.

THE MILITARY

The U.S. Navy's Pacific Missile Range Facility (PMRF) at Barking Sands is the only major military facility outside of Oahu, with over $30 million in annual expenditures this year. Even more, it is already the largest underwater, surface, and aerial tracking range in the U.S. and, in fact, the world. It is now in the process of growing even bigger.

Expansion of the PMRF began last summer with the deployment of instruments to extend the trackable area by 250 square miles. Now at 1,050 square miles, the range is planned to span 17,500 square miles by 1991, expanding both northwest and southeast from Barking Sands. This increase is estimated to cost $72 million over the 1987 to 1992 period. In the coming year alone, facility development will amount to $10 million in expenditures.

The expansion will also mean gains in employment. Pending Navy approval, civil service employees may grow from the present 55 workers to 87 next year, military personnel from 130 to 185, and locally contracted service from 412 to 440.

CONSTRUCTION AND REAL ESTATE

After a record boom in 1983 when $45 million of new construction was recorded, most of it to repair 1982's hurricane damage, building activity has slowed. Last year saw $27 million of new construction, and current trends suggest about the same for this year. Building permits show a similar pattern, falling from the $138 million high recorded in 1983. Residential permits last year were at $39 million, while nonresidential permits were at $14 million. Permit values for 1985 may be slightly higher. In government construction contracts, the boom occurred last year when $38 million in contracts were issued for hurricane repairs, the new Lihue airport, and other projects. This year's total should be in the $14 million range.

Construction employment is also shrinking. From a huge peak of 1,100 jobs in 1980 when a rash of condominium construction took place, the job count is expected to be about 550 in 1985.

In general, construction firms on Kauai are still in the difficult process of adjusting to a lower volume of work. The bulk of recent large resort and airport projects have gone to non-Kauai firms. Hardest hit are the union builders. They have been losing ground to nonunion firms, which have grown to become formidable competitors. Obtaining bonding and affordable liability and employee insurance are other pressing concerns for the industry.

The real estate market has been very active. Single family resales rose to 71 homes last year, and are experiencing a late surge that may carry 1985 totals slightly higher. Average prices are rising, and may top $135,000 this year. Condominium resales are exceptionally strong as investors trade under-performing properties. This year may see a jump from 42 units sold in 1984 to nearly double that in 1985. Because of the substantial condominium inventory on the market, prices were down to 10 percent through September and could drop to less than $130,000 by year's end.

ALTERNATE ENERGY

Sugar plantations supply about 43 percent of Kauai's electrical needs. Their share is expected to grow as plantations such as Lihue increasingly turn to power production for additional revenues.

Lihue Plantation, the biggest plantation power producer, is committed to providing Kauai Electric, the island's utility company, with 48 weeks of firm power. For 1986, Lihue will lengthen its sugarcane harvesting and grinding season to obtain sufficient bagasse for its boilers. It is also seeking approval to burn low-sulfur coal to substitute for the expensive fuel oil now used to supplement the bagasse.

Hydroelectric power provides 15 percent of Kauai's electricity. Dates for the construction of proposed generators at Hanalei, Lumahai, Wainiha, and Kekaha Sugar's Kitano plant site are still uncertain. More certain is a project at Wailua Falls. Island Power from Utah announced plans to construct a $9 million, 16-megawatt plant with a dam that would be located upstream of Wailua Falls. To preserve the popular falls, the plant would shut down during the dry season.

These hydroelectric projects are important to Kauai Electric. If none materializes, the utility may need to construct another expensive fossil fuel plant to satisfy Kauai's projected demand in 1991.

GOVERNMENT

The government project with the greatest potential impact on Kauai's economy may be the proposed modification of the Lihue Airport runway to accept fully loaded DC-10s and other wide-body aircraft. The new airport runway is designed to accommodate landings by such aircraft, and plans have been made to enable the old runway to also accept wide-body landings. Takeoffs, however, would

require a substantial lengthening of either runway, a $10 million project, and it turns out that improving the old runway would be more expedient. If such work were approved, other airlines may add to the existing two overseas flights, giving Kauai's visitor industry a big boost. The bigger cargo capacity of wide-body aircraft could also help aquacultural and agricultural producers to better serve overseas markets. With these benefits in mind, the Kauai Economic Development Board has formed a special committee to lobby for state approval of the runway lengthening project.

Construction that is under way on the $36 million new Lihue Airport terminal and runway is slated to finish in October, 1986. The facility will provide eight airline parking positions, four holding rooms, and a helicopter landing and parking area that could accommodate a doubling of operators by the year 2000.

The updated Kauai County General Plan approved by the County Council last year broadens and consolidates land use categories in the county. While the adopted plan is less stringent than earlier drafts, it does establish a new growth management tool that is unique among the counties. An island-wide population growth rate is established, based on past population growth, proposed developments, programmed infrastructure improvements, and a "socially desirable" rate of growth for the next ten years. The growth rate is then translated into the amount of housing, resort, and commercial and industrial development that would be appropriate over the next ten years. The results would then be used as a guide by the county in issuing development permits. The specific growth rate number may be determined by the Council near the end of 1986. Work is also under way on proposed changes to the zoning code to help implement the General Plan and streamline the permit process.

The first-ever Kauai Products Show, exhibiting the diversity of locally produced goods, was recently held by the Kauai Economic Development Board and the County Office of Economic Development. At publication, a Kauai Products Council had just been formed to promote such items, and negotiations were under way to establish a Kauai products center near the airport to provide a convenient marketing outlet.

Kauai's film industry is now the largest of the Neighbor Islands. Past major productions have ranged from *South Pacific* to the more recent *Raiders of the Lost Ark* and *Uncommon Valor*. In the coming year, the industry is projected to spend $10 million on Kauai. The Kauai County Film Office has been busy promoting the Garden Isle to mainland and foreign producers. The office has also obtained special handling of permit applications to the State Film Office for productions on Kauai.

West Kauai's Main Street program, part of a national revitalization and historic preservation effort, formally came into being this March through county, state, and business financial support. The West Kauai program is unlike any other in the country because of its regional scope, from Kamakani to Mana. A design plan to guide the form of renovations and new buildings may be finished by spring of 1986.

Kauai County Statistics

	Unit	Period	1980	1981	1982	1983	1984	Jan.-Sep. 1985	% change Jan.-Sep. 1985/1984	% change Annual 1984/1983
Population, Resident	number	July 1	39,398	40,648	41,905	43,059	44,000	n.a.	n.a.	2.2
Per Capita Personal Income	dollars	total	8,583	9,168	9,610	9,867	n.a.	n.a.	n.a.	n.a.
Civilian Labor Force	number	mo. avg.	20,000	20,600	21,300	22,150	21,850	22,000	0.5	−1.4
Employment	number	mo. avg.	19,150	19,450	19,550	20,450	20,350	20,650	1.2	−0.5
Unemployment	number	mo. avg.	850	1,200	1,700	1,700	1,500	1,350	−12.9	−11.8
Unemployment Rate	percent	mo. avg.	4.2	5.7	8.0	7.6	6.8	6.2	−11.4	−10.5
Total Job Count[1]	number	mo. avg.	18,200	18,150	18,050	18,700	18,600	18,800	3.9	−0.5
Gross Business Receipts	mil. $	total	490.2	462.9	467.6	536.3	548.1	447.8	8.1	2.2
State Tax Collections[2]	thous. $	total	25,886	26,523	22,166	22,482	28,260	24,660	21.3	25.7
Visitor Expenditures	mil. $	total	189.3	197.3	210.6	250.8	359.4	n.a.	n.a.	43.3
Estimated Westbound Visitors	thous.	total	781.4	757.8	733.3	692.1	814.6	633.4	3.3	17.7
Hotel Inventory	number	Feb.	4,322	4,738	5,147	4,193	5,313	5,656	6.5[3]	26.7
Hotel Occupancy	percent	mo. avg.	69.6	62.7	57.2	57.2	63.0	67.0	5.0	10.1
Construction Put In Place	thous. $	total	29,937	27,984	28,965	45,265	26,753	21,218	1.6	−40.9
Private Permits	thous. $	total	133,094	67,313	44,239	137,853	52,735	48,721	15.8	−61.7
Residential Permits	thous. $	total	74,795	41,370	28,028	71,017	39,065	37,123	18.6	−45.0
Non-Residential Permits	thous. $	total	58,299	25,943	16,211	66,836	13,670	11,598	7.7	−79.5
Public Contracts Awarded	thous. $	total	10,938	18,082	25,061	7,882	38,058	12,839	−63.1	382.8
Real Estate Resales										
Single-Family	number	total	65	45	39	55	71	58	5.5	41.0
Average Price	dollars	cum. avg.	165,787	168,294	112,518	124,539	132,857	144,679	8.0	6.7
Condominium	number	total	43	12	27	28	42	60	93.5	50.0
Average Price	dollars	cum. avg.	147,500	144,000	162,380	141,964	138,848	117,195	−9.6	−2.2
Sugar Production, raw sugar 96°	thous. tons	total	223	236	217	205	217	201	9.2	5.9
Diversified Crops and Livestock	thous. $	total	10,428	10,968	9,487	9,359	11,138	n.a.	n.a.	19.0
Diversified Crops[4]	thous. $	total	4,696	5,724	4,763	4,248	5,925	n.a.	n.a.	39.5
Livestock	thous. $	total	5,732	5,244	4,724	5,111	5,213	n.a.	n.a.	2.0

[1] *Refers to number of jobs rather than number of persons employed. Persons with more than one job are counted more than once.*

[2] *Totals do not include property taxes.*

[3] *Compares February, 1985 to February, 1984.*

[4] *Total crops excluding sugar.*

n.a. = not available

B3500 2.3-U

ECONOMIC INDICATORS

NEIGHBOR ISLAND PROFILES

MAUI COUNTY IN 1986

Business activity on Maui took a breather during the first quarter of 1986. Compared to the same period a year ago, gross business receipts declined by 2.8 percent during the first three months of 1986, and the number of employed persons fell by 4.8 percent.

Maui's outlook for the rest of 1986 looks good, despite the first-quarter setback. Westbound overnight-and-longer tourist arrivals on Maui showed a sizable gain of 5 percent through May. Indeed, the prospect looks so promising that the Hawaii Visitors Bureau recently revised its statewide forecast to show double-digit increases in visitor counts for the rest of the year. Meanwhile, hotel occupancy continued to be strong through May which is typically a slow month.

Construction activity on the Valley Isle continued to improve. Construction-put-in-place showed an annual increase of 7 percent in 1985. Over the same period, private permits authorized and public contracts awarded increased by 199 and 41 percent, respectively. Due to declining interest rates and high hotel-occupancy rates, many developers are planning to build new hotels on Maui. Amfac, for example, is planning to build five hotels on the former Kaanapali airstrip. Also, a mainland partnership plans to build a 350 to 450-suites hotel, called the Embassy Suites Hotel, in the Wailea resort area.

Continuing growth in the tourism industry has caused bottlenecks for Maui's infrastructure. The most immediate problem is Maui's highway system which is inadequate to accommodate the increasing influx of visitors. During peak hours, traffic is virtually stopped on the main highway from the Kahului airport to Kaanapali. Long-term growth in Maui's tourism industry will require an improved transportation infrastructure.

As part of the 1985 Farm Act passed last December, the sugar provision is expected to help the sugar industry, which lost money in 1985 for the fifth year in a row. Operated as a government loan program, the provision establishes, in effect, a price floor for sugar growers who faced declining prices in recent years. Meanwhile, the pineapple industry on Maui has shown signs of a resurgence. In addition to the growing demand for fresh pineapple, favorable tax treatment through a recently obtained foreign-trade zone status will help Hawaii's growers to compete with imports of canned pineapple.

Despite fears, the recently-ended Inland Boatmen's Union strike appears to have had little impact on Maui's diversified agriculture. Diversified agriculture on Maui continues to grow, claiming an increasing share of the state's produce market. At the present time, the main concern facing Maui's farmers is the availability of water, especially in the upper Kula area. Fortunately, the County has been working hard to solve the water problem. Proposals are under way to expand the capacity of existing water reservoirs and to build new ones at various locations on Maui.

THE VISITOR INDUSTRY

In 1985, Maui County had 1,831,060 westbound visitors, down 1.3 percent from 1984. During the first quarter of 1986, westbound tourist arrivals also declined by 0.8 percent over the same period in 1985. In the light of the sustained growth during preceding periods, these decreases in westbound visitor counts, though small, caused concerns, for the first time in years, about the future of tourism on Maui.

These concerns appear unfounded for at least three reasons. First, the decline in westbound visitors during 1985 can be attributed mainly to the UAL strike during the summer of last year. Since most of its visitors are free and independent travelers (FIT), who can alter their plans with ease, Maui was hit the hardest by the strike. Second, the closing for renovations of the Maui Surf Hotel caused a significant loss in hotel accommodations. Third, the decline in westbound tourists visiting Maui during the first quarter of 1986 does not tell the whole story. With a weak dollar and heavy advertising by Japan Air Lines, Maui has recently experienced a significant increase of Japanese visitors. According to Frank Blackwell, Executive Director of the Maui Visitors Bureau, when these visitors are included, it is estimated that Maui's tourist counts actually increased 3 percent during the first quarter of 1986.

The increasing number of tourists visiting Maui is reflected in hotel occupancy rates of selected hotels on the Valley Isle. Kaanapali hotels had approximately 95 percent occupancy rates through April, compared to 94 percent over the same period in 1985. During the first quarter of this year, the occupancy rate at the Stouffer Wailea Beach Resort was up 20 percent. Similarly, the occupancy rate at the nearby Inter-Continental Hotel rose by 10 percent over the same period of last year.

Kapalua Bay Hotel is having its best year ever. Since December, the hotel has been 90 percent full through the second quarter, which is seasonally a slow period. The occupancy rate for the 160 condominium units under Kapalua's management was about 85 percent, an impres-

RESEARCH DEPARTMENT
JULY/AUGUST 1986

FIRST HAWAIIAN BANK
Established 1858 • Member of F.D.I.C.

sive record for that market. Business looks so favorable that owners of the hotel are planning to add 120 rooms on the north side of the present site. The project will cost about $15 million, and is expected to be completed by early 1988.

Together with Tobishima Corporation as its partner, Amfac is planning to build five hotels in their North Beach property, which includes the former Kaanapali airstrip. Each hotel will house approximately 400 to 450 rooms, and the first to be built in the South end will be open to visitors in 1991 if things go according to plan.

In a June press release, Alexander & Baldwin announced its intention to sell the company's beachfront property at the Wailea resort area. The buyer plans to build a 350 to 450-suites hotel, known as the Embassy Suites Hotel. The new hotel will be operated by Landmark Hotels, Inc., under a franchise from Embassy Suites, Inc., which is a wholly-owned subsidiary of the Holiday Corporation.

Sheraton Maui is undergoing a $7-million renovation project. In addition, the company is planning to add 373 rooms to its existing 510-room hotel at Kaanapali. Work may begin in about two years.

Meanwhile, Chris Hemmeter has secured financing for the renovation and expansion of the former Maui Surf Hotel. The hotel was closed in January, and is scheduled to be reopened in mid-1987 as Westin Maui. About 200 rooms will be added to the Maui Surf's existing 549 rooms, in addition to a new swimming pool and new parking stalls.

After long delays, Seibu's Maui Prince Hotel at Makena will be ready to receive guests in August. Starting at $200 a day, this $40 million, 300-room luxury hotel is aimed strictly at free and independent travelers. About 300 employees will service the hotel and its three restaurants. According to Von Imhof, Maui Prince's general manager, the hotel will establish itself as part of the mainstream hotel business in Hawaii, attracting visitors from Hawaii's main markets on the Mainland and Canada.

To provide more attractions to Maui's visitors, Amfac is going ahead with its Hawaiian Sea Village project. Special Management Area permits were obtained and construction is to begin next year. Patterned after Williamsburg, Virginia, the project is estimated to cost over $18 million and will occupy 16.2 acres at Kaanapali, across from the Marriott and Hyatt Regency hotels. A combination of cultural experiences and entertainment, the Village will display the lifestyle, cultural practices, and artifacts of ancient Hawaii prior to Captain Cook.

Maui Plantation, the most popular tourist attraction on Maui, is considering expansion. Plans are under way to double the size of the current 60-acre site. Visitors to the Plantation ride on the train through the field to see how crops are grown. Maui Plantation features a cross-section of Hawaiian tropical agriculture ranging from pineapples and mangoes to coffee and macadamia nuts.

Meanwhile, a Tropical Botanical Garden is in the planning stage for Maui. According to Ken Kato, President of Hawaiian Foliage and Landscape, Inc., the Garden will occupy 78 acres located between the proposed Maui Lani development and the west end of Kahului. Plans call for the garden to feature tropical islands in a large lake. In particular, the garden will include a Palm Island, Orchid Island, a waterfall with a cove underneath, and an aquarium with a fresh water fish collection.

SUGAR

In 1985, Maui produced 290,000 tons of raw sugar, down 17 percent from 1984. Despite record yields (output per acre), sugar production declined as fewer acres were harvested last year. Maui's sugar companies suffered an additional blow in 1985 when they received only $329 a ton for their sugar, $32 a ton less than in 1984. The lower price was primarily caused by higher import quotas set by the national Economic Policy Council in September. With the passage of the Farm Act of 1985 last December, sugar prices are expected to stabilize at a higher level this year.

With low sugar prices, almost all sugar companies on Maui lost money in 1985, the fifth straight year in a row for the entire industry. HC&S on Maui was the only company that reported a substantial profit in the entire state. Sustained losses forced sugar companies to streamline their operations. To reduce costs, sugar jobs in the field were reduced to 1,150 in 1985 from 1,200 in the previous year. This was the fourth consecutive decline from the peak of 1,450 jobs in 1981.

Alternative uses are also being found for sugar lands. Wailuku Agribusiness Company, formerly known as Wailuku Sugar Company, has planted more than 1,800 acres of macadamia nut trees on former sugarcane land. Continuing its effort to diversify, the Company signed a contract on April 17 to supply pineapples to Maui Pineapple Company's Kahului cannery for the next 20 years. Under the agreement, Wailuku Agribusiness is obligated to convert 2,000 acres of sugarcane to pineapple in the next four years. The first pineapple crop was planted in May of this year.

With high production costs and reduced yields, business was terrible for Amfac's Pioneer Mill in 1985. From 14.5 tons per acre in 1984, the droughts in 1983 and 1984 caused yields to drop to 12.6 tons per acre in 1985. As a consequence, sugar production fell 9 percent to 49,712 tons in 1985.

Robert Vorfeld, manager of Pioneer Mill, is confident that business will get better in 1986. As of June 2, more than 18,000 tons of sugar were produced at 13.4 tons per acre. About 54,000 tons are projected to be produced this year. Continuing its effort to reduce costs, about 17 jobs will be eliminated this year. The company's goal is to reduce the labor force to 360 workers by the end of the year.

Sugar remains a profitable venture for Hawaiian Commercial & Sugar Co., the largest sugar company in the state with its 37,000-acre plantation. As a result of the 1984 drought, total production fell to 219,468 tons in 1985 from the peak of 223,414 tons in 1984, with an average yield of 13 tons per acre. Despite lower production, an aggressive cost-containment program as well as savings on pumping costs from nearly normal rainfall last year allowed the company to earn a substantial profit in 1985. HC&S has maintained its position as the lowest-cost sugar producer for the third consecutive year.

PINEAPPLE

Pineapple production on Maui County is of great importance, accounting for about 70 percent of the state's pineapple production. As a result of the 1984 drought, production in 1985 was lower than the 419,000 tons produced in 1984. The lower production is reflected in part in a smaller labor force in 1985. Employment in Maui's pineapple industry fell 8 percent to 1,800 jobs (field and cannery) in 1985.

Despite sagging sales, the prospects for the industry look optimistic. Del Monte, which at one time announced the closing of its Molokai plantation, is expanding its planting there by 250 acres annually until output is doubled in 1988. Dole Food Company, a subsidiary of Castle & Cooke, grows pineapple on a 14,000-acre plantation on Lanai. Dole's production on Lanai is expected to increase

with further expansion of drip irrigation.

Because of lower output, Maui Land & Pineapple was not able to fully capitalize on the strong demand which existed in 1985 for top quality Hawaiian canned pineapple and pineapple juice. Faced with an expanding market for its private label pineapple, the company recently signed a 20-year contract to purchase pineapples from C. Brewer. Under the April 17, 1986 agreement, C. Brewer's Wailuku Agribusiness Co. will convert 2,000 acres of sugar land for pineapple crops over the next four years. The agreement fills the need created by shrinkage of available acreage. Desirable land has been lost due to expiration of leases and airport and highway projects.

DIVERSIFIED AGRICULTURE

In terms of crop sales, Maui County's diversified agriculture accounts for approximately 13 percent of the state's total crop value. As of 1984, the latest data available, vegetables and melons are ranked first with a crop value of $9 million, followed by cattle ($6.9 million), flowers & nursery products ($4.5 million), forage & grain products ($3.7 million), hogs ($1.9 million), fruits other than pineapple ($343,000), and other livestock products ($125,000). To avoid disclosure of individual operations, data are not shown for macadamia nuts, eggs, broilers and chickens, and milk.

Many of Maui's vegetable farmers market their produce through the Hawaii Farmers Cooperative Association (HFCA) and Maui Farmers Cooperative Exchange. The HFCA, based in Honolulu, is made up of Maui and Big Island farmers. The cooperative collects the planting and production plans of their member farmers. Equipped with this information, representatives from the coop meet with major food wholesalers to set agreeable volume and price agreements for the various types of produce. Acting as jobbers, the cooperatives help farmers receive a fair price for their product, while helping wholesalers obtain a steady supply of quality produce.

Cattle farmers on Molokai had a bad year. Earlier this year, cattle farmers were asked to liquidate their herds in an attempt to rid Molokai of bovine tuberculosis. State and federal officials contend that an islandwide slaughter is the only way to eradicate the disease, which has lingered on Molokai for more than 40 years. Although more than 200 ranchers have cooperated, some have refused to go along with the cattle-eradication program.

The Protea Cooperative of Maui is anticipating an increase in sales of 30 to 35 percent for fiscal year ending June 30, 1986. According to Cindy Lawrence, Executive Director of the Coop, sales are expected to increase at the same rate next fiscal year. To stabilize sales year-round, starting two years ago, tropical plants were also handled by the Coop. Due to an increasing Mainland awareness of tropical flowers, future prospects look promising, and plans are under way to expand the existing storage facility at the Coop.

CONSTRUCTION

Construction activity on Maui was healthy in 1985. Construction-put-in-place in 1985 increased 7 percent over the strike-ridden 1984. Maui's construction activity through March was running at $21.5 million, up a substantial 38 percent over the same period in 1985.

Private permits authorized, an index of future private construction activities, rose almost 200 percent to $179 million in 1985, while authorizations for nonresidential permits increased by 73 percent to $33 million in 1985.

While data are not yet available, Maui's private construction activity appears to be strong in 1986. At Wailea Point, the first phase of construction involving 20 upscale condominium units was completed. The second phase consisting of 46 units is well under way. Work on the third phase with 64 units will begin in August when the second phase construction is expected to be finished.

At Kahului, the Wakea Business Center is under construction in the Maui Industrial Park. The Center is comprised of nine buildings with a total leasable space of 146,000 square feet. The buildings were originally designed to accommodate 94 small businesses with areas ranging from 800 to 2,400 square feet; but other configurations are also possible. One building is virtually complete. This $4 million project is expected to be completed by the end of this year.

In April, the Maui Planning Commission approved a $15 million office complex, to be built on the old Haleakala Motors site in Wailuku. The six-story structure will provide 90,000 square feet of floor space and 226 covered parking stalls for its tenants. Construction is scheduled to start early next year with first occupancy in December 1987.

Public contracts awarded increased 41 percent to $37.8 million in 1985. So far this year, government contracts awarded through May stood at $25 million, an increase of 19 percent over the same period in 1985. Government projects under construction include the Kahului Airport expansion, the state court building along Wells Street, Makawao Intermediate School, and the $8 million police station.

The county is continuing to work on several affordable housing projects. Work on the 88-unit Luana Garden I in Kahului began last year and is expected to be completed by the end of this year. Work on the 71-lot Hale Noho subdivision in Napili is scheduled to begin in August. Site improvements on the 22-lot Kaluaaha Estate project are already started and should be completed in several months.

In February, construction started on Phase I of the Skill Village housing project in Paia. About 73 new homes will be built in the first phase. Groundbreaking ceremonies were held in June in upper Paia to mark the start of Phase II.

HIGH TECHNOLOGY INDUSTRIES

On March 17, zoning for the Kihei Research and Technology Park was approved by the County Council's Planning Committee. Recently, the full council gave the go-ahead for the proposed 300-acre R&T park located on the Haleakala Ranch land. The concept for the park grew out of an effort, started six years ago, to find and establish an industry that could join tourism and agriculture as main elements in Maui's economic future.

Pending final approval from the Public Works Department, work on the first building will take place before the end of the year. Groundbreaking ceremonies are scheduled for October. According to Don Malcolm, Director of the Maui Economic Development Board, six lots occupying 150 acres will be developed in the first phase. Joe Smolen of the Royal Development Co., a California-based firm, was selected as the developer for the park. The new park hopes to attract software, telecommunication firms and high-technology research companies.

Besides the R&T park, the Maui Economic Development Board is currently involved with two other projects. In one project, the Board is helping to form a profit-making firm called Agritech Industry of Maui (AIM). This firm is to market agro-technologies developed by NIFTAL. NIFTAL, a government-funded project headquartered in Maui, has

been doing research on biological nitrogen fixation since 1979. Its purpose is to help farmers in developing countries step up production of high protein foods with reduced dependence on costly nitrogen fertilizers.

The Board is also promoting high technology research on Maui. The U.H. is currently operating a solar observatory at the 10,025-foot summit of Haleakala. The Board hopes to attract more companies and academic institutions to come to Maui for research in optics and related areas such as satellite communications.

Despite lower oil prices, Maui Electric Company (MECO) is still interested in the long-term development of geothermal and wind power energy. Having received a favorable decision from the State Department of Land and Natural Resources, the True-Mid Pacific Co. is closer to bringing a drilling rig over to Hawaii. Depending on where permits are granted on each island, the company might drill on Maui first. Meanwhile, Zond, the developer of wind-power, fully intends to go ahead with windpower development, but in small increments due to lower costs paid by MECO. According to a study made by Zaininger Engineering Co., MECO can take up to 5 percent of total power generation from wind generation. The 5-percent limit is desired to insure the stability of the system because fluctuations in wind power can also create fluctuations in the power supply.

CONCLUSION

The Maui County economy performed well in 1985 in spite of the United Airlines strike. Compared to the previous year, gross business receipts increased by 5 percent in 1985, while tourist expenditures rose by 5 percent, and construction-put-in-place showed an annual increase of 7 percent.

All signs indicate another good year in the making for 1986, given presently prevailing conditions. Indeed, growth in Maui's tourism has been so rapid as to outpace the capacity of the island's hotel inventory and transportation system. The most immediate problem facing Maui appears to be a need to upgrade the highway system, which has become inadequate to accommodate the increasing influx of visitors. Solution of this problem could clear the way for Maui's continued growth through the next decade.

Maui County Statistics

	Unit	Period	1981	1982	1983	1984	1985	Jan.-May 1986	% change Jan.-May 1986/1985	% change Annual 1985/1984
Population, Resident	number	July 1	74,150	76,900	79,850	83,100	86,750	n.a.	n.a.	4.4
Per Capita Personal Income	dollars	total	9,778	10,562	10,958	11,611	n.a.	n.a.	n.a.	n.a.
Civilian Labor Force	number	mo. avg.	39,800	42,900	44,850	44,950	46,850	47,100	1.0	4.2
Employment	number	mo. avg.	37,450	39,550	41,450	42,250	44,100	44,050	0.2	4.4
Unemployment	number	mo. avg.	2,350	3,300	3,400	2,700	2,750	3,050	13.0	1.9
Unemployment Rate	percent	mo. avg.	5.9	7.7	7.6	6.0	5.9	6.5	12.4	−1.7
Total Job Count[1]	number	mo. avg.	35,150	36,600	37,850	38,950	40,600	39,900	−1.2	4.2
Gross Business Receipts	mil. $	total	1,165.9	1,203.4	1,376.2	1,613.7	1,694.7	776.0	4.6	5.0
State Tax Collections[2]	thous. $	total	57,582	52,850	68,217	76,573	82,941	39,898	7.9	8.3
Visitor Expenditures	mil. $	total	429.4	540.3	792.9	1,078.3	1,134.2	n.a.	n.a.	5.2
Estimated Westbound Visitors	thous.	total	1,389.9	1,550.1	1,645.7	1,854.7	1,831.0	851.2	4.9	−1.3
Hotel Inventory	number	February	11,359	12,162	12,749	13,138	14,152	14,096	−0.4[3]	7.7
Hotel Occupancy	percent	mo. avg.	70.3	73.9	75.2	80.5	78.5	87.5	2.9	−2.5
Construction Put In Place	thous. $	total	74,746	69,497	66,952	68,593	73,527	35,719	32.6	7.2
Private Permits	thous. $	total	147,813	90,702	91,249	59,841	178,633	n.a.	n.a.	198.5
Residential Permits	thous. $	total	118,802	35,771	38,814	40,887	145,915	n.a.	n.a.	256.9
Non-Residential Permits	thous. $	total	29,011	54,931	52,435	18,954	32,718	n.a.	n.a.	72.6
Public Contracts Awarded	thous. $	total	12,886	45,790	29,943	26,759	37,766	24,510	18.2	41.1
Real Estate Resales										
Single Family	number	total	148	103	185	201	259	140	37.3	28.9
Average Price	dollars	cum. avg.	181,889	134,861	155,095	175,494	151,865	162,181	5.8	−13.5
Condominium	number	total	240	282	381	386	424	250	47.9	9.8
Average Price	dollars	cum. avg.	166,832	153,414	151,169	141,763	123,471	149,559	8.9	−12.9
Sugar Production, raw sugar 96°	thous. tons	total	255	235	287	300	290	92	6.8	−3.5
Pineapple Sales, Fresh Equivalent	thous. $	total	39,915	38,602	45,099	42,200	36,380	n.a.	n.a.	−13.8
Diversified Crops and Livestock	thous. $	total	24,875	25,443	28,870	30,500	31,516	n.a.	n.a.	3.3
Diversified Crops[4]	thous. $	total	13,270	14,085	16,503	18,000	19,302	n.a.	n.a.	7.2
Livestock	thous. $	total	11,605	11,358	12,367	12,500	12,214	n.a.	n.a.	−2.3

[1]Refers to number of jobs rather than number of persons employed. Persons with more than one job are counted more than once.
[2]Totals do not include real property taxes.
[3]Compares February, 1986 to February, 1985.
[4]Total crops excluding sugar and pineapple.
n.a. = not available

RESEARCH DEPARTMENT
JULY/AUGUST 1986

FIRST HAWAIIAN BANK
Member FDIC
Established 1858